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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,060	03/14/2001	Noriki Kajizaki	FUJA 18.463	2927

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EXAMINER

NGUYEN, STEVEN H D

ART UNIT PAPER NUMBER

2665

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,060

Applicant(s)

KAJIZAKI ET AL.

Examiner

Steven HD Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 5-8 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Gopalakrishna (USP 6614808).

Regarding claims 1 and 7, Gopalakrishna discloses (Figs 1-10 and col. 1, line 10 to col. 9, line 27) a network relay apparatus comprising a routing information gathering unit for determining the maximum transmission unit of a transmission path along a route over which packets are to be transmitted (col. 5, lines 48-59); and a combining unit for assembling a combined packet by combining packets up to a length that does not exceed the maximum transmission unit of said transmission path (Col. Fig 9, col. 8, lines 35-56, col. 9, lines 22-27).

Regarding claims 2 and 8, Gopalakrishna discloses (Figs 1-10 and col. 1, line 10 to col. 9, line 27) the combined packet carries as a destination address the address of an endpoint of the route over which said packets are transmitted in combined form, said apparatus further comprising a disassembling unit for disassembling a received combined packet into individual packets if the destination address of said received combined packet matches the address of said apparatus (col. 2, line 62 to col. 3, line 3).

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Regarding claims 5 and 11, Gopalakrishna inherently discloses (Figs 1-10 and col. 1, line 10 to col. 9, line 27) a combine allow/disallow determining unit for determining, based on a packet attribute, whether or not said combining unit should be made to combine packets (if the size of two session packets or the size of the session packet is equal to or greater than the maximum transport unit, the system will not generate a combined packet).

Regarding claims 6 and 12, Gopalakrishna discloses (Figs 1-10 and col. 1, line 10 to col. 9, line 27) a reassembling unit for disassembling a received combined packet into individual packets and reassembling the same into a combined packet of a length not exceeding the maximum transmission unit of the currently selected path if the length of said received combined packet exceeds said maximum transmission unit (Col. 3, lines 4-29, the aggregated packet is disassembling and reassembling into another aggregated packet for transmitting to downstream node).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishna in view of Badt (USP 5959974).

Regarding claims 3-4 and 9-10, Gopalakrishna fails to a routing processing unit for selecting a path having the largest maximum transmission unit as a path for said combined

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packet from among a plurality of transmission paths to the same destination by excluding the path along the shortest route. In the same field of endeavor, Badt discloses a method and system for determining a path between the source and destination with a maximum size packet in order to transmit a data without fragmentation (See Abstract).

Since, a method and system for determining and selecting a path with maximum transport unit size from a plurality of paths are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for selecting a PMTU from the other paths that has a largest MTU size as disclosed by Badt's system and method into Gopalakrishna's method and system because Gopalakrishna suggests the maximum aggregation size is determined at the establishment time. The motivation would have been to improve the network bandwidth and communication latency.

5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable Ketcham (USP 6721334) in view of Mulligan (USP 6212190).

Ketcham discloses (Figs 1-7 and col. 1, line 10 to col. 11, lines 20) a method and system for generating a combined packet, having a size less than the maximum size packet of the packet network, containing a plurality of smaller packets (Col. 2, lines 53-67); the combined packet carries as a destination address the address of an endpoint of the route over which said packets are transmitted in combined form, said apparatus further comprising a disassembling unit for disassembling a received combined packet into individual packets if the destination address of said received combined packet matches the address of said apparatus (Col. 8, lines 15-23), a combine allow/disallow determining unit for determining, based on a packet attribute, whether or not said combining unit should be made to combine packets (Col. 7, lines 42-52) and a

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reassembling unit for disassembling a received combined packet into individual packets and reassembling the same into a combined packet of a length not exceeding the maximum transmission unit of the currently selected path if the length of said received combined packet exceeds said maximum transmission unit (Col. 8, lines 27 to col. 9, lines 4). However, Ketcham fails to disclose a method and system for selecting a path from a plurality of path between the source and destination with a largest maximum transport size unit by determining a maximum transport unit size of each path. In the same field of endeavor, Mulligan discloses a method and system for selecting a path from a plurality of path between the source and destination with a largest maximum transport size unit by determining a maximum transport unit size of each path (Col. 3, line 45 to col. 4, line 37, col. 8, line 34 to col. 9, line 48).

Since, a method and system for determining and selecting a path with maximum transport unit size from a plurality of paths are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for selecting a PMTU from the other paths that has a largest MTU size as disclosed by Mulligan's method and system into the method and system of Ketcham. The motivation would have been to improve the network bandwidth and communication latency.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shaffer (USP 6003089) discloses a method and system for generating a combined packet.

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Bharucha (USP 6229821) discloses a method and system for generating a combined packet.

Goldberg (USP 6089038) discloses a method and system for generating a combined packet.


Turner (USP 6438137) discloses a method and system for generating a combined packet.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159.

The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
11/9/04